

REMARKS

Claims 1, 7 and 8 are pending in the instant application. Claims 1, 7 and 8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnan (US 6,340,348 B1). The claims have not been amended. Reconsideration is respectfully requested.

Claims 1, 7 and 8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnan (US 6,340,348 B1). This rejection is respectfully traversed.

Applicants respectfully submit that the Office has failed to make a prima facie case of obviousness against the instant invention. The Office has raised no argument against the claim limitation that the high energy pulse or pulses which are initiated with the R-wave must terminate before the T-wave. The Office fails to address this claim limitation, as it must to establish a prima facie case of obviousness.

The instant invention, recites that the contrast agent may be destroyed by either a single pulse or a series of pulses which “coincides with the R-wave of an ECG of the heart and ending this just before a T-wave of the ECG.” Then the low-energy pulses are commenced as the high energy pulse, or pulses, ends, or end at the same T-wave.

There are two factors here for which the Office does not account: the ending of the destruction pulse and the beginning of the image pulse with the following T-wave. For Krishnan, the duration of the destruction pulses are only stated to be long enough so as to destroy the contrast agent. Additionally, Krishnan teaches that any start time for

triggering the imaging pulse will suffice, so long as it does not coincide with the destruction pulse. There are thus many variations of when to start the destruction pulses and imaging pulses according to Krishnan

The Office has not shown how one would be motivated to modify the teachings of Krishnan such that the low energy pulses commence at the T-wave as the high energy pulses end. To Krishnan, it is enough that the low energy pulses begin any time different from the time of the high energy destruction pulses. One following the teachings of Krishnan would not be motivated to begin the imaging pulse according to both the end of the destruction pulse AND the commencement of the T-wave, as claimed by the instant invention because the instant invention is directed to a therapeutic result while Krishnan is only directed to imaging. Thus, Krishnan would not motivate one to select the commencement time for the imaging pulses according to the instant invention.

Furthermore, while Krishnan makes a general statement that the imaging pulse may begin at any time, all of Krishnan's examples are directed to imaging off of the R-wave. For example, in addition to the broad statements in the Summary of the Invention mentioned by the Office, Krishnan discloses that it is possible to trigger the firing of destruction pulses by a physiological signal such as a cardiac (ECG) signal (col. 6, line 27-33), e.g. the R-wave of said ECG signal (col. 7, lines 55-58). Further, Krishnan also specifically states that the imaging pulses are initiated at the R-wave at column 14, lines 45-49 and column 15, lines 1-3. Clearly, Krishnan does not point in the direction of the claimed method wherein the destruction pulse(s) is initiated at an R-wave and ends just

before a T-wave, combined with initiating the imaging pulses at the same T-wave as the destruction pulse ends. Hence, Krishnan fails to disclose, teach, or suggest expressly claimed elements of the method.

As stated above, Applicant has specified when the destruction and imaging pulses are to be delivered. Krishnan fails to disclose the claimed timing, because Krishnan is solely directed to imaging, not to a therapeutic result. There is no teaching, suggestion or motivation to perform the claimed steps as the reference is only directed to imaging. Stating that one could somehow accidentally stumble onto the claimed invention when performing the method of Krishnan, without a motivation for doing so, is not the proper basis for a finding of obviousness. In the instant case, Krishnan provides no teaching, nor any motivation, for performing the steps as claimed, therefore Krishnan does not render the instant invention obvious.

In view of both the Office's failure to establish a prima facie case of obviousness and of Krishnan's failure to disclose, teach, or suggest the instant invention, Applicant respectfully submits that the instant invention is patentably distinct thereover. Reconsideration and withdrawal of the rejection is respectfully requested.

In view of the amendments and remarks hereinabove, Applicant respectfully submits that the instant application, including claims 1, 7, and 8, is in condition for allowance. Favorable action thereon is respectfully requested.

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Any questions with respect to the foregoing may be directed to Applicants' undersigned counsel at the telephone number below.

Respectfully submitted,

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